REMARKS

Applicant is in receipt of the Office Action mailed January 13, 2005. Claims 285, 286, 291, 292, 299, 302-304, 306, 307, 309, 319, 326, 331-334, 339, 340, 353, 355, 362, 363, 368-370, 372, 272, 275, and 378-381 have been amended to clarify the claimed invention. Claims 285-381 remain pending in the case. Reconsideration of the present case is earnestly requested in light of the following remarks.

Section 103 Rejections

. Claims 370 – 380 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sojoodi et al. (U.S. Patent No. 6,437,805, "Sojoodi") and Sullivan (U.S. Patent No. 6,453,464, "Sullivan"). Applicant respectfully disagrees.

Amended claim 370 recites:

370. A system for automatically creating a graphical program, comprising:

a computer system including a CPU and memory;

a client program executing in the computer system, wherein the client program performs API calls to automatically create a graphical program based on received information; and

a server program operable to receive the client program calls to automatically create the graphical program based on the received information, wherein, in automatically creating the graphical program, the server program is executable to:

automatically create a plurality of graphical program nodes in the new graphical program; and

automatically interconnect the plurality of graphical program nodes in the new graphical program, wherein the interconnected plurality of graphical program nodes comprise at least a portion of the new graphical program;

wherein the server program is operable to automatically create the new graphical program without any user input specifying selection of graphical program nodes and interconnection of graphical program nodes.

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As the Examiner is certainly aware, to establish a prima facie obviousness of a claimed invention, all claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974), MPEP 2143.03. Obviousness cannot be established by combining or modifying the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion or incentive to do so. In re Bond, 910 F. 2d 81, 834, 15 USPQ2d 1566, 1568 (Fed. Cir. 1990).

Moreover, as held by the U.S. Court of Appeals for the Federal Circuit in Ecolochem Inc. v. Southern California Edison Co., an obviousness claim that lacks evidence of a suggestion or motivation for one of skill in the art to combine prior art references to produce the claimed invention is defective as hindsight analysis. In addition, the showing of a suggestion, teaching, or motivation to combine prior teachings "must be clear and particular . . .. Broad conclusory statements regarding the teaching of multiple references, standing alone, are not 'evidence'." *In re Dembiczak*, 175 F.3d 994, 50 USPQ2d 1614 (Fed. Cir. 1999). The art must fairly teach or suggest to one to make the specific combination as claimed. That one achieves an improved result by making such a combination is no more than hindsight without an initial suggestion to make the combination.

The Examiner asserts that Sojoodi teaches a system for programmatically creating a graphical program. Applicant respectfully submits that Sojoodi does not teach the present claims. Rather, as explained in the last Response, which is hereby incorporated by reference, Sojoodi describes *manual* creation of a graphical program which is operable to access capabilities of an object, and specifically does *not* describe automatically creating the graphical program via execution of a program. Applicant has amended the claims to emphasize the fact that the graphical program is *not* generated manually, i.e., in response to user input specifying selection of graphical program nodes and interconnection of graphical program nodes. More specifically, Applicant has replaced the term "programmatically" with the term "automatically" to emphasize this point. Support for these amendments may be found throughout the present application. For example, the Background section, page 5, lines 15-22, recites:

As described above, a user typically creates a graphical program within a graphical programming environment by *interactively or manually placing icons or nodes representing the desired blocks of functionality on a diagram, and connecting the icons/nodes together* to represent the data flow of the program. The ability to *programmatically create/edit graphical programs* enables a graphical program to *automatically* be created/edited *without this type of interactive user intervention.* A system and method for programmatically creating/editing graphical programs is described herein.

Page 6, lines 4-9 recites:

The ability to programmatically create/edit graphical programs enables applications and tools to *automatically* create or modify a graphical program or a portion of a graphical program. In the preferred embodiment, any operation which a user may perform while interactively assembling or editing a graphical program (e.g., connect two objects, change the position of an object, change the color of an object, etc.) may be performed programmatically.

Regarding client/server embodiments, page 8, lines 1-4 recites:

As noted above, the program which calls the API in order to *automatically* create or edit a graphical program is referred to herein as the client program. The program which performs the create/edit operations on the graphical program is referred to herein as the server program.

Thus, various of the claims recite that the graphical program is created *automatically,* i.e., *without any user input specifying selection of graphical program nodes and interconnection of graphical program nodes.*

The Office Action cites col. 5, lines 28-30, in asserting that Sojoodi discloses a client program (executing in the computer system) performing API calls to programmatically create a graphical program. However, the cited portion actually reads:

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> The present invention comprises a system and method for creating a graphical program, wherein the graphical program is operable to access capabilities of an object.

Nowhere does the cited portion refer to "programmatically" or "automatically" creating a graphical program.

Similarly, the Office Action cites col. 4, lines 43-53, in asserting that Sojoodi discloses a server program operable to receive the client program calls to programmatically create a graphical program and operable to perform the respective operations. The cited portion actually reads:

> The notion of object technology relates to an application program or object using capabilities or services of an object. For example, object technology includes the notion of "servers" "exporting" their "objects" for use by "clients." A server is a software application which makes available its classes to be accessed from another application, referred to as a client. A client instantiates objects from the classes in the type libraries. In addition, the term "object" also includes various other types of components or objects, including applications, which offer services or functionality that can be accessed by a client.

Nowhere does the cited portion refer to a server program operable to receive client program calls to automatically create a graphical program based on received information and operable to perform the respective operations, i.e., to automatically create the graphical program.

Further arguments and citations regarding Sojoodi's teaching of *manual* creation of a graphical program were provided in the previous Response, which was incorporated by reference above.

Thus, Applicant respectfully submits that Sojoodi does not disclose automatically creating the graphical program without user input specifying or guiding the inclusion and interconnection of graphical program nodes.

The Examiner states that "Sojoodi does not teach creating the new program from a program without any user input specifying the nodes and interconnection of the

plurality of node" [sic]. Applicant submits that this statement is itself misleading, in that the particular wording "creating the new program from a program" implies that a new program is necessarily created *based on* another program, i.e., that the new program is necessarily created by converting or translating another program, which is *not* an accurate description or characterization of Applicant's invention as claimed.

The Office Action asserts that Sullivan corrects the deficiencies of Sojoodi. Applicant respectfully disagrees. As the Examiner herself points out, Sullivan teaches converting a COBOL program to a Java program. More specifically, as Sullivan describes in the Abstract:

> The present invention relates to a method for translating computer programs from a language having the attributes of computer programming language COBOL to a language having the attributes of the computer programming language Java.

Nowhere does Sullivan teach or suggest automatically creating a graphical program. More specifically, Sullivan fails to teach a server program executable to automatically create the graphical program by automatically creating a plurality of graphical program nodes in the new graphical program; and automatically interconnecting the plurality of graphical program nodes in the new graphical program, where the interconnected plurality of graphical program nodes comprise at least a portion of the new graphical program; and where the server program is operable to automatically create the new graphical program without any user input specifying selection of graphical program nodes and interconnection of graphical program nodes.

Rather, Sullivan discloses *translation or conversion* of a COBOL program to a Java program. Applicant notes that Sullivan never mentions automatic creation of a graphical program in response to received information, nor mentions a graphical program at all.

Thus, for at least the reasons provide above, Applicant submits that neither Sojoodi nor Sullivan, taken singly or in combination, teaches or suggests all the features and limitations of claim 370, and so claim 370 and those claims dependent therefrom are patentably distinct and non-obvious over Sojoodi and Sullivan.

Claim 379 includes limitations that are similar to some of the patentably distinct and non-obvious limitations of claim 370. For example, claim 379 includes the limitations: a means for automatically instantiating the new graphical program; a means for automatically creating a node in the new graphical program; a means for getting or setting properties of the new graphical program or the node; and a means for automatically invoking methods on the new graphical program or the node, where the means for automatically instantiating the new graphical program are operable to automatically instantiate the new graphical program without any user input specifying instantiation of the new graphical program, where the means for automatically creating the node in the new graphical program are operable to automatically create the node in the new graphical program without any user input specifying creation of the node in the graphical program; and where the means for automatically invoking methods on the new graphical program or the node are operable to automatically invoke methods on the new graphical program or the node without any user input specifying invocation of methods on the new graphical program or the node.

Applicant respectfully submits that neither Sojoodi nor Sullivan teaches or suggests these features and limitations of claim 379. Moreover, as argued above with respect to claim 370, neither Sojoodi nor Sullivan teaches or suggests automatic creation of a graphical program by *any* means, and specifically fails to teach the various means for such automatic creation of a graphical program included in claim 379. For example, nowhere does Sojoodi or Sullivan teach or suggest means for automatically instantiating a new graphical program (without any user input specifying instantiation of the new graphical program), nor means for automatically creating a node in the new graphical program (without any user input specifying creation of the node in the graphical program), nor means for automatically invoking methods on the new graphical program or the node (without any user input specifying invocation of methods on the new graphical program or the node).

Thus, for at least the reasons provided above, Applicant submits that neither Sojoodi nor Sullivan, taken singly or in combination, teaches or suggests all the features and limitations of claim 379, and so claim 379 and those claims dependent therefrom are patentably distinct and non-obvious over Sojoodi and Sullivan.

Removal of the 103 rejection of claim 370-380 is respectfully requested.

Claims 285 - 369, and 381 were rejected under 35 U.S.C. 103(a) as being unpatentable over McDonald et al (U.S. Patent No. 5,966,532, "McDonald"), Sojoodi, and Sullivan. Applicant respectfully disagrees.

Amended claim 285 recites:

285. A computer-implemented method for automatically creating a graphical program, comprising:

creating a first program, wherein the first program is executable to automatically create a new graphical program based on received information;

executing the first program, wherein said executing comprises automatically creating the new graphical program based on the received information, wherein said automatically creating the new graphical program comprises:

automatically creating a plurality of graphical program nodes in the new graphical program; and

automatically interconnecting the plurality of graphical program nodes in the new graphical program;

wherein the interconnected plurality of graphical program nodes comprise at least a portion of the new graphical program; and

wherein said automatically creating the new graphical program creates the new graphical program without any user input specifying the plurality of graphical program nodes or the interconnection of the plurality of graphical program nodes program during said creating.

Applicant respectfully submits that neither McDonald, Sojoodi, nor Sullivan provides a motivation to combine, and so the attempted combination of McDonald, Sojoodi, and Sullivan is improper. For example, nowhere does McDonald teach or suggest, or indicate, the desirability or benefit of automatically creating a graphical

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program in the manner of claim 285. Rather, McDonald quite clearly is directed to generating a graphical program (or portion) by programmatically selecting pre-existing code templates based on user-selected graphical user interface controls and inserting the code templates into a graphical program, which is not at all the same as the present invention as represented in claim 285.

Furthermore, as argued above, nowhere does Sojoodi or Sullivan suggest the desirability or benefit of automatically creating a graphical program, i.e., without user input selecting the nodes and connections between the nodes. Applicant notes that the only motivation to combine indicated by the Examiner (again) is "to automatically translate graphical program from one programming language to another programming language" [sic]. As stated above, Applicant respectfully submits that translating a graphical program from one programming language to another is not a feature of Applicant's invention as claimed, and so is an improper motivation to combine.

Moreover, Applicant submits that even were McDonald, Sojoodi, and Sullivan properly combinable, which Applicant argues they are not, the resulting combination would still not produce Applicant's invention as claimed, as argued in detail below.

The Office Action asserts that McDonald teaches "the creating of a first program, when executing, programmatically creating a new graphical program" [sic], citing col. 3, lines 61-63. Applicant respectfully disagrees.

Applicant notes that the cited portion of McDonald actually reads:

> The present invention comprises a computer-implemented
> system and method for automatically generating graphical
> code in a graphical programming system.

However, Applicant submits that there are numerous possible ways to automatically generate graphical code in a graphical programming system, and that the method disclosed by McDonald is not at all the same as that claimed in the present application.

For example, as argued in the previous two Responses, in the system and method of McDonald, a wizard selects a graphical code template *in response to user selection of a user interface control*, and includes the template in a graphical program, where the

graphical code template corresponds to the selected control, and operates in conjunction with the control. In other words, the wizard selects a graphical code template in response to (and corresponding to) a user-selected user interface control, and inserts the template into the graphical program. Thus, a pre-existing graphical code template is selected based on a user-selected user interface control, and inserted into a graphical program.

Nowhere does McDonald teach or suggest "creating a first program, wherein the first program is executable to automatically create a new graphical program", nor executing the first program to automatically create the new graphical program, including *automatically creating a plurality of graphical program nodes in the new graphical program, and automatically interconnecting the plurality of graphical program nodes in the new graphical program...wherein said automatically creating the new graphical program creates the new graphical program without any user input specifying the plurality of graphical program nodes or the interconnection of the plurality of graphical program nodes program during said creating.* The graphical code templates selected in McDonald have preconfigured nodes and interconnections, and hence McDonald does not perform, and has no reason to perform, any automatic creation or interconnection of nodes.

Additionally, Applicant submits that neither Sojoodi nor Sullivan provides a motivation to combine, and so the attempted combination of Sojoodi and Sullivan is improper. For example, nowhere does Sojoodi or Sullivan suggest the desirability or benefit of automatically creating a graphical program, i.e., without user input selecting the nodes and connections between the nodes. Applicant notes that the only motivation to combine asserted by the Examiner is "to automatically translate graphical program from one programming language to another programming language". Applicant submits that graphical programs and graphical programming are technically quite distinct from traditional text-based programs and programming. More specifically, Applicant submits that the creation mechanisms of graphical programming are very different from text-based approaches. For example, as described in Sojoodi, manual creation of a graphical program is performed by the user manually dragging and dropping various nodes onto a block diagram, then manually interconnecting the nodes. This is in direct

contrast to the traditional text-based approach of programming where the user literally types program instructions into a text-editor. Similarly, because the creation mechanisms of these two programming approaches are so different, Applicant submits that Sullivan's disclosed techniques for automatic translation or conversion of text-based source code in one text-based programming language (COBOL) to text-based source code in another text-based programming language (JAVA) are non-analogous art with respect to the graphical programming taught by Sojoodi. Applicant submits that the respective technologies of graphical and text-based programming are so dissimilar that one of normal skill in the art would not be motivated to combine Sojoodi and Sullivan, and so the attempted combination is improper.

Moreover, Applicant submits that even were Sojoodi and Sullivan properly combinable, which Applicant argues they are not, the resulting combination would still not produce Applicant's invention as claimed, as argued in detail above. Thus, Applicant submits that automatically creating and connecting nodes in a graphical program is different from Sojoodi's manual creation of graphical programs, as well as from Sullivan's conversion of text-based programs.

Thus, for at least the reasons provided above, Applicant submits that neither McDonald, Sojoodi, nor Sullivan, taken singly or in combination teaches or suggests all the features and limitations of claim 285, and so claim 285 and those claims dependent therefrom are patentably distinct and non-obvious over McDonald, Sojoodi, and Sullivan, and are thus allowable.

Independent claims 333, 353, 355, 362, and 381 include similar limitations as claim 285 in that a program, e.g., a graphical program, executes to *automatically create a graphical program without any user input specifying selection of graphical program nodes and interconnection of graphical program nodes*. Thus, Applicant respectfully submits that the arguments presented above apply with equal force to these claims, and further submits that neither McDonald, Sojoodi, nor Sullivan, taken singly or in combination, teaches or suggests all of the features and limitations of claims 333, 353, 355, 362, and 381, and thus Applicant submits that these claims, and those claims

respectively dependent thereon, are patentably distinct and non-obvious over the cited art, and are thus allowable for at least the reasons provided above.

Removal of the 103 rejection of claims 285-369, and 381 is respectfully requested.

Applicant also asserts that numerous ones of the dependent claims recite further distinctions over the cited art. However, since the independent claims have been shown to be patentably distinct, a further discussion of the dependent claims is not necessary at this time.

CONCLUSION

Applicant submits the application is in condition for allowance, and an early notice to that effect is requested.

If any extensions of time (under 37 C.F.R. § 1.136) are necessary to prevent the above referenced application(s) from becoming abandoned, Applicant(s) hereby petition for such extensions. If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert & Goetzel PC Deposit Account No. 50-1505/5150-37301/JCH.

Also enclosed herewith are the following items:

☒ Return Receipt Postcard

☒ Information Disclosure Statement

Respectfully submitted,

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